remote from the impact of local anthropogenic sources and were applied uniformly to all census tracts.

The estimated concentrations were compared to previously defined benchmarks for cancer and noncancer effects (*2*). For this analysis, a HAP was considered to be a potential human carcinogen if it was classified by the U.S. EPA (*3*) as Group A (known), B (probable), or C (possible), or by the International Agency for Research on Cancer (IARC) as Group 1 (known), 2A (probable), or 2B (possible). The description of the IARC categorization for carcinogens is found in the preamble of each IARC Monograph (*4*). This is consistent with the prescribed risk-based standards for risks resulting from exposures to known, probable, and possible carcinogens in the Clean Air Act Amendments of 1990 [section 112(f)]. The benchmark concentration for carcinogens was set equal to a concentration associated with a one-in-a-million cancer risk for lifetime exposure. We then assessed the number of exceedances, or census tracts with estimated concentrations greater than the one-in-a-million benchmark, for each HAP.

The initial assessment of the carcinogenicity of methyl chloride was reported in a document prepared by the U.S. EPA Office of Research and Development (*5*). In this document methyl chloride was classified as a group C carcinogen (possible human carcinogen) on the basis of kidney tumors found in mice exposed via inhalation. Therefore, we considered methyl chloride to be a possible human carcinogen on the basis of the U.S. EPA classification.

The Section 112(g) technical support document (*6*) referred to by Browning did not classify any HAPs as carcinogens, but rather adopted existing agency assessments for use in its hazard ranking. The procedures for adopting assessments for the section 112(g) document were peer reviewed by an external expert panel, but this panel did not engage in further review of individual pollutant assessments that had already been through various forms of external and internal peer review. The analysis of Caldwell et al. (*2*) referenced in our paper built on and extended the principles used in the Section 112(g) document (*6*) to assemble hazard information on air toxics. One of these principles was to use existing reviewed toxicologic data. Although it was beyond the scope of our paper (*1*) to review the toxicologic data for each HAP, the general assessment procedures, as well as the specific methyl chloride weight-of-evidence classification and benchmark concentration, were presented by Caldwell et al. (*2*). Although the U.S. EPA classification of methyl chloride differs from that of IARC, the tiering approach adopted by Caldwell et al. considered the U.S. EPA classifications first and then used IARC assessments for pollutants lacking a U.S. EPA classification.

Browning correctly quotes the "Results" of our paper (*1*): methyl chloride was one of several pollutants that had

> modeled concentrations exceeding the benchmark concentrations for cancer in 100% of the census tracts.

Immediately after this statement, we explained that this result was due to the fact that the estimated background concentrations (applied to every census tract) alone were greater than the benchmark concentrations for these pollutants. We further explored the results for these pollutants by considering the number of exceedances when background is disregarded. Table 2 in our paper (*1*) clearly displayed our finding that when the background concentration was disregarded, estimated 1990 methyl chloride concentrations exceeded the cancer benchmark in about 110 (out of 60,000) census tracts in the contiguous United States. This information is all clearly presented in the same paragraph that contains the statement quoted by Browning.

Our main objective in conducting this analysis was to estimate concentrations experienced in ambient air, regardless of source, to help define the potential scope of impacts on public health. As we stated in the paper,

> Future regulatory and scientific activities can begin to focus on these pollutants to address and further evaluate their public health significance.

In our paper (*1*), we did not recommend any specific course of action for methyl chloride or any other pollutant.

We agree that greater confidence should be placed in results for pollutants classified as known and probable human carcinogens than for those classified as possible human carcinogens. However, as we have stated in our work, we believe it is important to include as much information about the potential hazards of as many HAPs as possible. To do otherwise would be to initially assume that there is no risk and would not reflect prudent public health practice. As we stated in our paper (*1*), it is appropriate to follow up with further research to investigate these relationships more closely.

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References and Notes

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Correction

In the July **Focus** article, "A Healthy Home Environment?" [*EHP* 107:A352–A357 (1999)], the sentence "Natural gas in the United States does not contain carbon, but CO may form if the gas is burned without an adequate air supply" should have read "Natural gas in the United States also contains carbon, and CO may form if the gas is burned without an adequate air supply." *EHP* regrets the error.